

REMARKS

Applicants respectfully request reconsideration of the above-captioned application and entry of the foregoing changes to the claims. Applicants note with appreciation the indication at the paragraph bridging pages 5 and 6 of the Final Office Action that the Examiner would permit a change to the claims as to the use of the extraction electrode to form a triode structure and/or the instant claimed inventions' including the absence of an additional grid electrode. Applicants propose by the above, a change believed to be in compliance with this suggestion.

For completeness of a response, the following comments are offered. The Office Action includes a rejection of claim 3 under 35 U.S.C. § 102(b) as being anticipated by the newly cited *Zimlich* patent (U.S. Patent No. 5,773,927); a rejection of claims 3 and 4 under 35 U.S.C. § 102(e) as allegedly being anticipated by the *Jager* patent (U.S. Patent No. 6,107,733) and a rejection of claims 1 and 2 under 35 U.S.C. § 103 as allegedly being unpatentable over the *Jager* patent in view of the *Keesmann et al.* patent (U.S. Patent No. 5,773,921). These rejections are respectfully traversed.

As previously argued with respect to the *Jager* and *Keesmann* patents, a hypothetical combination thereof does not disclose, teach or suggest the use of extraction electrodes formed in the front of the substrate on which the anode is formed, the extraction electrode(s) being separated from the anode by a predetermined distance in the context of the pending claims. The *Jager* patent, for instance, as disclosed at column 3, lines 15-16, as well as column 4, lines 24-38, includes focusing strips biased to a negative or zero potential so as to create an electric field driving back the electrons emitted from the

microtips, thereby creating a focusing effect. For the Examiner's convenience, Applicants have illustrated this effect

in the adjacent Exhibit A,

which is an adaptation of

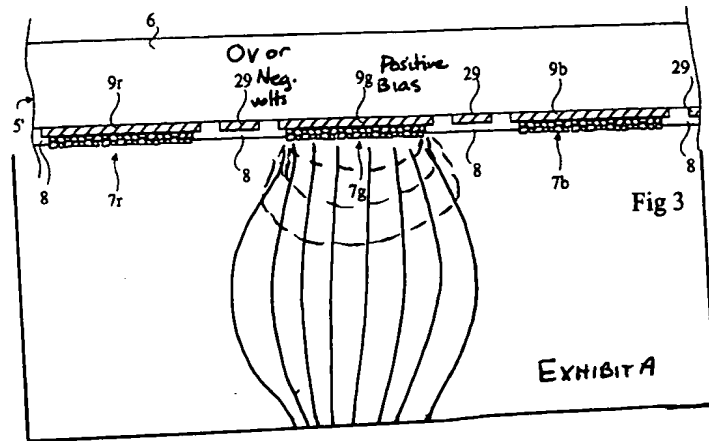
Figure 2 of the *Jager*

patent. This is distinct

from the extraction

electrodes 21 as meant in

the originally filed



application which, as illustrated in Figures 3 and 4, are biased so as to extract electrons that would otherwise impinge on the phosphor 13 formed on the anode 12, thereby establishing a triode structure. In the previous response, the definition provided in the specification for what is meant as an "extraction electrode" was relied upon. In response to the Examiner's comments, Applicants have simply incorporated, without narrowing the claims, the definition of extraction electrodes as provided in the originally filed specification.

With respect to the *Keesmann* patent, Applicants note that even in hypothetical combination with the *Jager* patent, the hypothetical combination would not include the above-mentioned features.

Finally, with respect to the newly cited *Zimlich* patent, Applicants noted similarity in relevant respect to the *Jager* patent, e.g., use of focusing electrodes 72a, 72b and 72c which, as disclosed at column 5, beginning at line 20, cause electron emissions from the

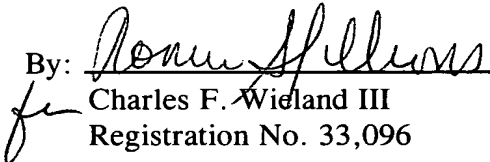
emitters to be deflected towards a respective localized portion of the anode 66a, 66b, 66c, and 66d and thus are prevented from causing bleedover.

In light of the foregoing, Applicants respectfully request entry of the foregoing changes to the claims, reconsideration and allowance of the present application. Should any residual issues exist, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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Attachment to Amendment After Final dated June 11, 2003

Mark-up of Claims

1. (Amended) A triode field emission display (FED) using carbon nanotubes, comprising:

front and rear substrates disposed to face each other and separated by a predetermined distance;

a cathode formed on the rear substrate;

carbon nanotubes formed on the cathode;

an anode formed on the front substrate;

phosphor formed on the anode; and

an extraction electrode formed on the front substrate on which the anode is formed, the extraction electrode being separated from the anode by a predetermined distance **and upon selective biasing acts to extract electrons away from impinging on the phosphor formed on the anode.**

2. (Amended) A triode field emission display (FED) using carbon nanotubes, comprising:

front and rear substrates disposed to face each other and separated by a predetermined distance;

cathode lines formed on the rear substrate in a striped pattern;

carbon nanotubes formed on the cathode lines at regular intervals;

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anode lines formed on the front substrate in a striped pattern crossing the cathode lines;

phosphor formed on the anode lines; and

extraction electrodes formed on the front substrate on which the anodes are formed, each extraction electrode being separated from each adjacent anode by a predetermined distance, the extraction electrodes being formed in a striped pattern parallel to the anode lines **and upon selective biasing act to extract electrons away from impinging on the phosphor formed on the anode.**

3. (Amended) A triode field emission display (FED) using carbon nanotubes, comprising:

front and rear substrates disposed to face each other and separated by a predetermined distance;

a cathode formed on the rear substrate;

electron emitters formed on the cathode;

an anode formed on the front substrate;

phosphor formed on the anode; and

an extraction electrode formed on the front substrate on which the anode is formed, the extraction electrode being separated from the anode by a predetermined distance **and upon selective biasing acts to extract electrons away from impinging on the phosphor formed on the anode.**

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4. (Amended) A triode field emission display (FED) using carbon nanotubes, comprising:

front and rear substrates disposed to face each other and separated by a predetermined distance;

cathode lines formed on the rear substrate in a striped pattern;

electron emitters formed on the cathode lines at regular intervals;

anode lines formed on the front substrate in a striped pattern crossing the cathode lines;

phosphor formed on the anode lines; and

extraction electrodes formed on the front substrate on which the anodes are formed, each extraction electrode being separated from each adjacent anode by a predetermined distance, the extraction electrodes being formed in a striped pattern parallel to the anode lines **and upon selective biasing act to extract electrons away from impinging on the phosphor formed on the anode.**